## **ABSTRACT**

A quantum communication system including (a) an emitter configured to emit a plurality of photon pulses in groups of photon pulses, each group of photon pulses emitted over a group time period, wherein the average number of photons per pulse is less than 1, and (b) a detector including a gating mechanism configured to switch the detector between an on state and an off state. The detector is in an on state for at least the duration of two photon pulses during the group time period